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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/992,855 | 11/05/2001 | Ronald W. Fraser | GP-301724 | 6003 |

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| EXAMINER | |
|---|---|
| PHAM, TUAN | |
| **ART UNIT** | **PAPER NUMBER** |
| 2618 | |

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/992,855 | FRASER ET AL. | |
| | Examiner | Art Unit | |
| | TUAN A. PHAM | 2618 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *01 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *22-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see Applicant's remark, filed on 03/01/2006, with respect to the rejection(s)of claim(s) 22-39 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made over Nordlund (U.S. Patent No.: 6,112,093) in view of Malony (U.S. Patent No.: 6,288,676).

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claims 22-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordlund (U.S. Patent No.: 6,112,093) in view of Malony (U.S. Patent No.: 6,288,676).**

**Regarding claim 22**, Nordlund teaches a method of adjusting a signal level of a mobile transceiver comprising (see figure 1):

connecting a call between the mobile transceiver (see figure 1, mobile 120a) and a land-based station (see figure 1, PSTN 160), wherein the call connects through a mobile communication network (see figure 1, MTSO 150) and a land-based calling network (see figure 1, PSTN 160, col.4, ln.50-67, col.5, ln.1-10), and

determining, at the land-based station, a measurement of the signal level of the mobile transceiver received at the land-based station during the call (see col.2, ln.25-45).

It should be noticed that Nordlund fails to teach responsive to the measurement, sending a signal level instruction from the land-based station to the mobile transceiver; and adjusting the signal level of the mobile transceiver responsive to the signal level instruction. However, Maloney teaches teach responsive to the measurement, sending a signal level instruction from the land-based station to the mobile transceiver (see col.15, ln.1-17); and adjusting the signal level of the mobile transceiver responsive to the signal level instruction (see col.14, ln.42-67, col.15, ln.1-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Malony into view of Nordlund in order to determine the location of a mobile radio transceiver without

requiring a GPS receiver and less expense as suggested by Malony at column 7, lines 39-47.

**Regarding claim 23**, Malony further teaches generating a first modem carrier signal from the land-based station after the connecting of the call, and generating a second modem carrier signal from the mobile transceiver in response to the first modem carrier signal, wherein the signal level of the mobile transceiver represents the second modem carrier signal received the land-based station (see col.14, ln.42-67, col.15, ln.1-17. First, the land-based station send a first frequency to the mobile transceiver. In response, the mobile will generate the second frequency sending back to land-based station. The land-based station is based on the second frequency received from mobile, then the land-based will instruct the mobile to adjust the operating frequency).

**Regarding claim 24**, Malony further teaches the second modem carrier signal level is adjusted more than one time during the call (see col.15, ln.1-17, it is obvious that the land-based station will adjust the operating frequency more than one time during the call).

**Regarding claim 25**, Nordlund further teaches the measuring of the signal level of the mobile transceiver received at the land-based station comprises making a single measurement at a beginning of a data communication segment of the call (see col.2, ln.26-45).

**Regarding claim 26**, Nordlund further teaches the measuring comprises making a plurality of measurements throughout a communication session (see col.2, ln.26-45, it

is obvious the land-based station will continue measure the signal strength from the mobile station).

**Regarding claim 27**, Nordlund further teaches a data mode and voice mode, wherein the mobile transceiver switches between the data mode and the voice mode during the call (see col.2, ln.46-60, dual mode).

**Regarding claim 28**, Nordlund further teaches the modem carrier is received from an analog modem (see col.1, ln.49-60).

**Regarding claim 29**, Nordlund further teaches the modem carrier is received from a digital modem (see col.1, ln.49-60).

**Regarding claim 30**, Nordlund further teaches the measuring of the signal level of the mobile transceiver received at the land-based station comprises making a measurement at a beginning of a data communication segment of each call (see col.2, ln.26-45).

**Regarding claim 31**, Nordlund teaches a method of adjusting a signal level of a mobile transceiver comprising (see figure 1):

the mobile transceiver (see figure 1, mobile 120a);

connecting a call between the mobile transceiver (see figure 1, mobile 120a) and a land-based station (see figure 1, PSTN 160), wherein the call connects through a mobile communication network (see figure 1, MTSO 150) and a land-based calling network (see figure 1, PSTN 160, col.4, ln.50-67, col.5, ln.1-10), and

determining, at the land-based station, a measurement of the signal level of the

mobile transceiver received at the land-based station during the call (see col.2, ln.25-45).

It should be noticed that Nordlund fails to teach responsive to the measurement, sending a signal level instruction from the land-based station to the mobile transceiver; and adjusting the signal level of the mobile transceiver responsive to the signal level instruction. However, Maloney teaches teach responsive to the measurement, sending a signal level instruction from the land-based station to the mobile transceiver (see col.15, ln.1-17); and adjusting the signal level of the mobile transceiver responsive to the signal level instruction (see col.14, ln.42-67, col.15, ln.1-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Malony into view of Nordlund in order to determine the location of a mobile radio transceiver without requiring a GPS receiver and less expense as suggested by Malony at column 7, lines 39-47.

**Regarding claim 32**, Malony further teaches generating a first modem carrier signal from the land-based station after the connecting of the call, and generating a second modem carrier signal from the mobile transceiver in response to the first modem carrier signal, wherein the signal level of the mobile transceiver represents the second modem carrier signal received the land-based station (see col.14, ln.42-67, col.15, ln.1-17. First, the land-based station send a first frequency to the mobile transceiver. In response, the mobile will generate the second frequency sending back to land-based

station. The land-based station is based on the second frequency received from mobile, then the land-based will instruct the mobile to adjust the operating frequency).

**Regarding claim 33**, Malony further teaches the second modem carrier signal level is adjusted more than one time during the call (see col.15, ln.1-17, it is obvious that the land-based station will adjust the operating frequency more than one time during the call).

**Regarding claim 34**, Nordlund further teaches the measuring of the signal level of the mobile transceiver received at the land-based station comprises making a measurement at a beginning of a data communication segment of each call (see col.2, ln.26-45).

**Regarding claim 35**, Nordlund further teaches the measuring comprises making a plurality of measurements throughout a communication session (see col.2, ln.26-45, it is obvious the land-based station will continue measure the signal strength from the mobile station).

**Regarding claim 36**, Nordlund further teaches the measuring of the signal level of the mobile transceiver received at the land-based station comprises making a measurement at a beginning of a data communication segment of each call (see col.2, ln.26-45).

**Regarding claim 37**, Nordlund further teaches a data mode and voice mode, wherein the mobile transceiver switches between the data mode and the voice mode during the call (see col.2, ln.46-60, dual mode).

**Regarding claim 38**, Nordlund further teaches the modem carrier is received from an analog modem (see col.1, ln.49-60).

**Regarding claim 39**, Nordlund further teaches the modem carrier is received from a digital modem (see col.1, ln.49-60).

**4. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nordlund (U.S. Patent No.: 6,112,093) in view of Malony (U.S. Patent No.: 6,288,676) and further in view of Hayashi (U.S. Patent No.: 6,697,634).**

**Regarding claim 40**, Nordlund teaches a method for wireless mode carrier level control comprises (see figure 1):

Measuring a modem carrier signal strength of a mobile communication device (mobile 120a) at a land-based station (see figure 1, PSTN 160 is included land-based station or central office for wire line), the land-based station connected to a land-based calling network (see figure 1, PSTN 160), the land-based calling network connected to a wireless network (see figure 1, MTSO 150), the wireless network connected to the mobile communication device (see figure 1, mobile 120a); and

Comparing the measured modem carrier signal strength to a prescribed level (see col.2, ln.25-45, col.6, ln.30-50).

It should be noticed that Nordlund fails to teach sending a modem carrier level instruction from the land-based station to a mobile communication device via the land-based calling network and wireless network, the modem carrier level instruction comprising a prescribed set of tone. However, Malony teaches sending a modem

carrier level instruction from the land-based station to a mobile communication device via the land-based calling network and wireless network (see col.14, 42-67, col.15, ln.1-17), the modem carrier level instruction comprising a prescribed set of tone (read on set of frequencies, col.14, 42-67, col.15, ln.1-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Malony into view of Nordlund in order to determine the location of a mobile radio transceiver without requiring a GPS receiver and less expense as suggested by Malony at column 7, lines 39-47.

Nordlund and Malony, in combination, fails to teach increment or decrement the modem carrier level by a predetermined decibel level. However, Hayashi teaches such features (see col.4, ln.1-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Hayashi into view of Nordlund and Malony in order to determine the location of a mobile radio transceiver without requiring a GPS receiver and less expense as suggested by Malony at column 7, lines 39-47.

## Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618
May 1, 2006
Examiner

Tuan Pham

Supervisory Patent Examiner
Technology Center 2600

Matthew Anderson